



BY: Sbloss

## PROJECT DESCRIPTION

### GENERAL

THIS PORTION OF THE PROJECT INVOLVES INSTALLATION OF A TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 237 (CHANCELLORS RUN ROAD) AND HORSEHEAD ROAD/ CHANCELLORS RUN PARK IN ST. MARYS COUNTY, MARYLAND. MD 237 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

### INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA EIGHT-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH THE MD 237 APPROACHES OPERATING CONCURRENTLY AND THE HORSEHEAD/CHANCELLORS RUN PARK APPROACHES OPERATING CONCURRENTLY.

EXCLUSIVE/PERMISSIVE LEFT-TURN PHASING IS PROVIDED FOR THE NORTHBOUND AND SOUTHBOUND MD 237 APPROACHES.

AN ALTERNATE PEDESTRIAN PHASE IS PROVIDED ACROSS THE SOUTH LEG OF MD 237. PEDESTRIAN INDICATIONS ARE PROPOSED ACROSS HORSEHEAD ROAD AND CHANCELLORS RUN PARK ENTRANCE.

### APS NOTES

WHEN THE PEDESTRIAN LOCATES AND PRESSES THE PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL ANNOUNCE THE FOLLOWING MESSAGE:

- MD 237 (CHANCELLORS RUN ROAD)  
WAIT: "WAIT TO CROSS CHANCELLORS RUN AT HORSEHEAD"  
WALK: THE PUSHBUTTON UNIT WILL PROVIDE A RAPID TICK

- HORSEHEAD ROAD  
WAIT: "WAIT TO CROSS HORSEHEAD AT CHANCELLORS RUN"  
WALK: THE PUSHBUTTON UNIT WILL PROVIDE A RAPID TICK

- PARK ENTRANCE  
WAIT: "WAIT TO CROSS PARK ENTRANCE AT CHANCELLORS RUN"  
WALK: THE PUSHBUTTON UNIT WILL PROVIDE A RAPID TICK

- \* MESSAGE USED IF DISTANCE FROM NEAREST PUSHBUTTON FOR PERPENDICULAR CROSSING IS < 10'
- \*\* MESSAGE USED IF CROSSWALK DIVERGES FROM OR CONVERGES WITH PARALLEL TRAFFIC

NOTE: MESSAGES FOR INTERSECTION CONFIGURATIONS, VARYING FROM THE ABOVE ARE TO BE APPROVED BY THE DIRECTOR, OFFICE OF TRAFFIC AND SAFETY.

### CONTROLLER REQUIREMENTS

INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH VIDEO INTERFACE EQUIPMENT (1-4) CAMERAS, TWO (2) FOUR-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIERS WITH SYSTEM PACKAGE AND ASSOCIATED HARNESSES HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET. PHONE DROP

UPON COMPLETION OF THIS PROJECT, THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF SHA AT (410) 787-7635 TO ARRANGE FOR THE PHONE LINE INSTALLATION. THE CONTRACTOR IS TO PROVIDE MR. SNYDER THE NEAREST STREET ADDRESS, ZIP CODE, AND PHONE NUMBER.

## MAINTENANCE OF TRAFFIC

THE FOLLOWING TRAFFIC CONTROL STANDARDS SHALL BE REFERENCED FOR THE PROJECT. ADDITIONAL TRAFFIC CONTROL STANDARDS MAYBE USED AS DIRECTED BY THE ENGINEER.

- STANDARD NO. MD-104.02-01 (SHOULDER WORK)  
STANDARD NO. MD-104.02-03 (LANE SHIFT)  
STANDARD NO. MD-104.02-14 (INTERSECTION FLAGGING OPERATION)

## PROJECT CONTACTS

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

MS. KIMBERLY TRAN  
ASSISTANT DISTRICT ENGINEER - TRAFFIC  
PHONE: (410) 841-1019

MR. CHUCK E. GEORGE  
ASSISTANT DISTRICT ENGINEER - MAINTENANCE  
PHONE: (410) 841-1013

MR. JOHN S. MAYS  
DISTRICT UTILITY ENGINEER  
PHONE: (410) 841-1039

MR. RICHARD L. DAFF, SR.  
CHIEF, TRAFFIC OPERATIONS DIVISION  
PHONE: (410) 787-7630

## EQUIPMENT LIST "A"

### A. EQUIPMENT TO BE SUPPLIED BY THE SHA

| ITEM NO. | QUANTITY | DESCRIPTION   |
|----------|----------|---|
| 9044     | 1 EACH   | EIGHT-PHASE, FULL-TRAFFIC-ACTUATED CONTROLLER WITH SYSTEM PACKAGE HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET  |
| 9086     | 1 EACH   | VIDEO DETECTION INTERFACE EQUIPMENT: 1-4 CAMERAS  |
| 9571     | 148 S.F. | SHEET ALUMINUM SIGNS TO CONSIST OF : <ul style="list-style-type: none"><li>4 EACH D-3(1) SIGN (VARIABLE x 16 IN.) DUAL FACED - MAST ARM MOUNT</li><li>1 EACH ASSOCIATED SHIELD ASSEMBLY "NORTH, MD , RIGHT ARROW" (30 IN. x 51 IN.) - POLE MOUNT</li><li>1 EACH ASSOCIATED SHIELD ASSEMBLY "NORTH, MD , LEFT ARROW" (48 IN. x 75 IN.) - POLE MOUNT</li><li>1 EACH ASSOCIATED SHIELD ASSEMBLY "SOUTH, MD , RIGHT ARROW" (30 IN. x 51 IN.) - POLE MOUNT</li><li>1 EACH ASSOCIATED SHIELD ASSEMBLY "SOUTH, MD , LEFT ARROW" (48 IN. x 75 IN.) - POLE MOUNT</li><li>2 EACH R10-3(1) SIGN (9 IN. x 15 IN.) TO READ "PUSHBUTTON TO CROSS CHANCELLORS RUN ROAD"</li><li>2 EACH R10-3(1) SIGN (9 IN. x 15 IN.) TO READ "PUSHBUTTON TO CROSS HORSEHEAD ROAD"</li><li>2 EACH R10-3(1) SIGN (9 IN. x 15 IN.) TO READ "PUSHBUTTON TO CROSS PARK ENTRANCE"</li><li>2 EACH W3-3 SIGN (36 IN. x 36 IN.) WITH "NEW" PANEL (24 IN. x 24 IN.) AND FLAG - GROUND MOUNT</li></ul> |

## EQUIPMENT LIST "C"

C. EQUIPMENT TO BE REMOVED AND RETURNED TO SHA  
NO EQUIPMENT TO BE REMOVED AND RETURNED TO SHA.

## PHASE CHART

|                    |     |     |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |
|--------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|
|                    | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12  | 13   | 14   | 15   | 16   | 17   | 18   |
|                    |     |     |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |
| PHASE 1 AND 5      | R   | R   | R   | R   | R   | R   | R   | R   | R   | R   | R   | R   | DW   | DW   | DW   | DW   | DW   | DW   |
| 1 AND 5 CHANGE     | ←G→ | ←G→ | ←G→ | ←G→ | ←G→ | ←G→ | ←G→ | ←G→ | ←G→ | ←G→ | ←G→ | ←G→ | DW   | DW   | DW   | DW   | DW   | DW   |
| PHASE 1 + 6        | ←G→ | ←G→ | G   | R   | R   | R   | R   | R   | R   | R   | R   | R   | DW   | DW   | DW   | DW   | DW   | DW   |
| 1 + 6 CHANGE       | ←G→ | ←G→ | G   | R   | R   | R   | R   | R   | R   | R   | R   | R   | DW   | DW   | DW   | DW   | DW   | DW   |
| PHASE 2 + 5        | R   | R   | R   | ←G→ | ←G→ | G   | R   | R   | R   | R   | R   | R   | DW   | DW   | DW   | DW   | DW   | DW   |
| 2 + 5 CHANGE       | R   | R   | R   | ←G→ | ←G→ | G   | R   | R   | R   | R   | R   | R   | DW   | DW   | DW   | DW   | DW   | DW   |
| PHASE 2 + 6        | G   | G   | G   | G   | G   | G   | R   | R   | R   | R   | R   | R   | WK   | WK   | WK   | WK   | DW   | DW   |
| PED CLEARANCE      | G   | G   | G   | G   | G   | G   | R   | R   | R   | R   | R   | R   | FLDW | FLDW | FLDW | FLDW | DW   | DW   |
| 2 + 6 CHANGE       | Y   | Y   | Y   | Y   | Y   | Y   | R   | R   | R   | R   | R   | R   | DW   | DW   | DW   | DW   | DW   | DW   |
| PHASE 4 + 8        | R   | R   | R   | R   | R   | R   | G   | G   | G   | G   | G   | G   | DW   | DW   | DW   | DW   | DW   | DW   |
| 4 + 8 CHANGE       | R   | R   | R   | R   | R   | R   | Y   | Y   | Y   | Y   | Y   | Y   | DW   | DW   | DW   | DW   | DW   | DW   |
| PHASE 4 + 8 ALT    | R   | R   | R   | R   | R   | R   | G   | G   | G   | G   | G   | G   | DW   | DW   | DW   | DW   | WK   | WK   |
| PED CLEARANCE      | R   | R   | R   | R   | R   | R   | G   | G   | G   | G   | G   | G   | DW   | DW   | DW   | DW   | FLDW | FLDW |
| 4 + 8 ALT CHANGE   | R   | R   | R   | R   | R   | R   | Y   | Y   | Y   | Y   | Y   | Y   | DW   | DW   | DW   | DW   | DW   | DW   |
| FLASHING OPERATION | FLY | FLY | FLY | FLY | FLY | FLY | FLR | FLR | FLR | FLR | FLR | FLR | DARK | DARK | DARK | DARK | DARK | DARK |

## EQUIPMENT LIST "B"

### B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

| CATEGORY CODE | QUANTITY | DESCRIPTION   |
|---------------|----------|---|
| 203030        | 6 CY     | TEST PIT EXCAVATION   |
| 585621        | 815 LF   | 12 INCH HEAT APPLIED WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKINGS LINE |
| 585625        | 115 LF   | 24 INCH HEAT APPLIED WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINE  |
| 801004        | 16 CY    | CONCRETE FOR SIGNAL FOUNDATION  |
| 801106        | 75 LF    | WOOD SIGN SUPPORTS 4" x 6"  |
| 813014        | 26 SF    | INSTALL GROUND MOUNTED SIGN   |
| 802501        | 600 LF   | NO. 6 A.W.G. STRANDED BARE COPPER GROUND WIRE                             |
| 813015        | 122 SF   | INSTALL OVERHEAD SIGN   |
| 805105        | 120 LF   | 2 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED                           |
| 805115        | 70 LF    | 3 INCH SCHEDULE 80 RIGID PVC CONDUIT - BORED                              |
| 805115        | 800 LF   | 3 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED                           |
| 805118        | 180 LF   | 4 INCH SCHEDULE 80 RIGID PVC CONDUIT - BORED                              |
| 805140        | 190 LF   | 4 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED                           |
| 807202        | 1 EACH   | METERED SERVICE PEDESTAL  |
| 808050        | 2 EACH   | STEEL POLE WITH TWIN 50 FOOT AND 60 FOOT MAST ARMS                        |
| 810601        | 4 EACH   | NONINVASIVE DETECTOR, 1000 FT. LEAD-IN                                    |
| 811001        | 10 EACH  | FURNISH AND INSTALL ELECTRICAL HANDHOLE                                   |
| 816001        | 4 EACH   | VIDEO DETECTION CAMERA  |
| 816201        | 1 EACH   | DISCRIMINATOR MODULE, 4 CHANNEL, NO. 764                                  |
| 816215        | 2 EACH   | OPTICOM NO. 721 DETECTOR EYE  |
| 818004        | 4 EACH   | 10 FOOT BREAKAWAY PEDESTAL POLE   |
| 813010        | 1 EACH   | 250 WATT HIGH PRESSURE SODIUM LAMP AND LUMINAIRE                          |
| 837001        | 9 EACH   | GROUND ROD - 3/4 INCH DIAMETER x 10 FOOT LENGTH                           |
| 860270        | 6 EACH   | 8 INCH VEHICULAR TRAFFIC SIGNAL HEAD SECTION                              |
| 860272        | 38 EACH  | 12 INCH VEHICULAR TRAFFIC SIGNAL HEAD SECTION                             |
| 860292        | 1 EACH   | CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE                    |
| 861107        | 1040 LF  | ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 A.W.G.)                            |
| 861108        | 2090 LF  | ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 A.W.G.)                            |
| 861116        | 305 LF   | ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 A.W.G.)                            |
| 866103        | 1 EACH   | 15 FOOT LIGHTING ARM ON SIGNAL STRUCTURE                                  |
| 871202        | 1 EACH   | INSTALL CONTROLLER AND CABINET - BASE MOUNT                               |
| 800000        | 6 EACH   | 16" LED COUNTDOWN PEDESTRIAN SIGNAL HEAD                                  |
| 800000        | 6 EACH   | AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON BASE STATION                        |
| 800000        | 1 EACH   | AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON BASE UNIT                           |
| 800000        | 2 EACH   | CONTROL CABLE, 200 FOOT VIDEO DETECTION CAMERA TO CONTROLLER              |
| 800000        | 2 EACH   | CONTROL CABLE, 400 FOOT VIDEO DETECTION CAMERA TO CONTROLLER              |
| 800000        | 95 LF    | ELECTRICAL CABLE 1-CONDUCTOR NO. 4 A.W.G. - THNN/THWN                     |
| 800000        | 415 LF   | FURNISH AND INSTALL 4 CONDUCTOR OPTICOM CABLE                             |
| 800000        | 1 EACH   | REMOVE AND DISPOSE OF EXISTING MATERIAL AND EQUIPMENT                     |
| 800000        | 1000 LF  | ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 A.W.G.)                            |

2024 6/2/09  
GREENLINE REVISION NO. 1  
REVISED QUANTITIES  
5/1/2009

**SHA**

STATE OF MARYLAND  
DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION

OFFICE OF TRAFFIC & SAFETY  
TRAFFIC ENGINEERING DESIGN DIVISION

MD 237 AND CHANCELLORS RUN PARK ENTRANCE/HORSEHEAD ROAD

## GENERAL INFORMATION SHEET

SCALE NONE ADVERTISED DATE OCTOBER 6 2008 CONTRACT NO. SM7575171

DESIGNED BY B. DONOWAY COUNTY ST. MARYS  
DRAWN BY B. DONOWAY LOGMILE 18023701.33  
CHECKED BY N. LEARY TMS NO. H783  
F.A.P. NO. SEE TITLE SHEET TOD NO.

TS NO. 4657 DRAWING TSP - 3 OF 3 SHEET NO. 4 OF 8

**WR&A**

Whitman, Requardt  
and Associates, LLP

801 South Caroline Street  
Baltimore, Maryland 21231  
(410) 235-3450